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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/033,496	12/28/2001	Yeh-Hung Lai	81880PAL	8406

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EXAMINER

CHANG, VICTOR S

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 02/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/033,496	LAI ET AL.	
	Examiner	Art Unit	
	Victor S Chang	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-9 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-9 and 18-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Introduction

1. The Examiner has carefully considered Applicants' amendments and remarks filed on 12/27/2004. Applicants' amendments to claims 2-4, 7 and 18, cancellation of claims 10-17, and new claims 19 and 20 have been entered.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Rejections not maintained are withdrawn. In particular, Applicant's amendments to claims 2-4, 7 and 18 overcome the rejections under 35 USC 112 of prior Office action dated 9/23/2004. However, upon reconsideration, it is noted that the prior art references by Dontula also qualifies as prior art under 35 USC 102(e), as such new grounds of rejections must be made^{on} the Dontula references. Additionally, a new search yielded a new reference. The new reference is found to anticipate and/or render obvious the instant claimed invention.

Terminal Disclaimer

4. The terminal disclaimers filed on 2/9/2004 and 7/22/2004 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. Patent Nos. 6447976 and 6537656, respectively, have been reviewed and are accepted. The terminal disclaimers have been recorded.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 2-9 and 18-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Dontula et al. (US 644976).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

While Applicant's amendments and terminal disclaimer have overcome the prior rejections, upon reconsideration, it is noted that Dontula '976 also qualifies as prior art under 35 U.S.C. 102(e), because it has an effective filing date of 11/28/2000, which is earlier than the instant application (12/28/2001), and different inventive entity.

For claims 2-9 and new claims 18-20, it is noted that claims 1, 3, 5, 6, 8, 9, 10-12 and 24 of Dontula '976 disclose all the features of instantly claimed invention (an imaging member having a base formed of thermoplastic closed cell foam core sheet,

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and adhered thereto an upper and lower polymer sheets, etc.), except the modulus and toughness properties of each layer. However, Dontula '976 does teach that the upper and lower sheets are chosen to satisfy specific requirements of flexural modulus, etc., to alleviate the cutting problems (column 5, line 45 to column 6, line 2), and a typical example include a polyolefin foam core layer of 300 μm thick and modulus 137.9 MPa, and the upper and lower polyolefin sheets of 50 μm thick and modulus 1034 MPa (column 6, lines 49-54). As such, in the absence of evidence to the contrary, since Dontula '976 teaches the same subject matter as the instant invention by using the same polymers (see claims 6 and 24), and the modulus of each layer reads on the instantly claimed invention, it is the Examiner's position that a suitable toughness of each layer is also clearly anticipated by Dontula '976.

7. Claims 2-9 and 18-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Dontula et al. (US 6537656).

Similarly, for claims 2-9 and new claims 18-20, it is noted that claims 1, 3, 5, 10, 12, 13, 14, 18, 19 and 21-23 of Dontula '656 disclose all the features of instantly claimed invention, except the modulus and toughness of each layer. However, Dontula '656 does teach that the upper and lower sheets are chosen to satisfy specific requirements of flexural modulus, etc., to alleviate the cutting problems (column 4, line 63 to column 5, line 19), and a typical example include a polyolefin foam core layer of 300 μm thick and modulus 137.9 MPa, and the upper and lower polyolefin sheets of 50 μm thick and modulus 1034 MPa (column 5, line 65 to column 6, line 4). As such, in the absence of evidence to the contrary, since Dontula '656 teaches the same subject

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matter as the instant invention by using the same polymers (see claims 10 and 14), and the modulus of each layer reads on the instantly claimed invention, it is the Examiner's position that a suitable toughness of each layer is also clearly anticipated by Dontula '656.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2-9 and 18-20 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Bourdelais (US 6030742).

Bourdelais' invention is directed to a photographic paper comprising at least one photosensitive silver halide layer comprising at least one dye forming coupler, a support (base) comprising paper having laminated thereto a top and bottom sheet comprising biaxially oriented polyolefin sheets (Abstract). Suitable polyolefins include polypropylene, polyethylene, etc. (column 9, lines 40-45). The nonvoided skin layers of the composite sheet can be made of the same polymeric materials as the microvoided core matrix (column 9, lines 46-50; column 8, lines 1-16).

For claims 5, 7-9 and 18-20, Bourdelais lacks express teachings of the tensile toughness and modulus of each layers. However, since Bourdelais does teach the same subject matter, i.e., a photographic paper (an imaging member) which comprises

a photosensitive silver halide layer (an imaging layer); a three-layer support (base) of a microvoided (foamed) core layer and skin layers; and also formed of the same materials (e.g., polypropylene), in the absence of evidence to the contrary, it is the Examiner's position that suitable tensile toughness and modulus are either anticipated by Bourdelais, or obvious optimizations to one of ordinary skill in the art of photographic paper. It should be noted that where the claimed and prior art products are shown to be identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a *prima facie* case of either anticipation or obviousness has been established. See MPEP § 2112.01.

For claims 2-4 and 6, Bourdelais expressly teaches that the total thickness of the composite sheet can range from 12 to 100 μm , and the core layer is 15 to 95% of the total thickness of the sheet (column 5, line 66 to column 6, line 18), which reads on instant invention as claimed.

10. Claims 2-7, 9 and 18-20 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Shirai et al. (US 5665514).

Shirai's invention is directed to a thermal transfer image-receiving sheet for printing which has high glossiness, smoothness, cushioning property, and an excellent appearance. The thermal transfer image-receiving sheet comprises a substrate and a colorant-receptive layer (imaging layer) laminated on at least one surface of the substrate (base), the substrate comprising a laminate of a plurality of plastic films, the laminate comprising at least a microvoided (foamed) core layer, and skin layer

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laminated on either one surface of the core layer on the colorant-receptive layer side or both surfaces of the core layer, the volume fraction of the total volume of the microvoids contained in the skin layer based on the volume of the whole skin layer being smaller than the volume fraction of the total volume of the microvoids contained in the core layer based on the volume of the whole core layer, the volume fraction of the skin layer being in the range of from 1.0 to 15.0% (Abstract). In Example 1, Shirai shows a three-layer co-extrusion of a stretched polypropylene (polyolefin) film, in which the outer layers are formed inherently integrally with the core layer by the co-extrusion process.

For claims 5, 7, 9 and 18-20, Shirai lacks express teachings of the tensile toughness and modulus of each layers. However, since Shirai does teach the same subject matter (an imaging member of an imaging layer and a three-layer base, which has a microvoided (foamed) core layer and dense skin layers), as set forth above, and formed of the same material (e.g., polypropylene), it is the Examiner's position that suitable tensile toughness and modulus are wither anticipated by Shirai, or obvious optimizations to one of ordinary skill in the art of imaging receiving sheet. See MPEP § 2112.01.

For claims 2-4 and 6, Shirai expressly teaches in Example 1 that the thickness of the core layer was 50.0 μm with the thickness of each of the skin layers on respective surfaces of the core layer being 5.0 μm , which reads on instant invention as claimed.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In addition, the following references are cited of interest for making imaging sheets:

JP 10-052978 is directed a coloring matter receptive element which has a biaxially oriented composite film and a coloring matter image receptive layer laminated in that order on the front side of a support. This composite film contains a thermoplastic core layer with a microvoid and at least, one thermoplastic surface layer which has substantially no void (Abstract).

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor S Chang whose telephone number is 571-272-1474. The examiner can normally be reached on 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel H Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VSC

Victor S Chang
Examiner
Art Unit 1771

2/18/2005



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